

## Vipel® Corrosion-Resistant Resins for Composite Equipment and Systems in Wastewater Treatment

- Fiber-reinforced polymer (FRP) composites made with Vipel® resins resist the corrosive environments of municipal and industrial wastewater treatment. Composites made with AOC are durable, cost-effective alternatives to carbon steel, stainless steel, concrete and wood. Vipel and Firepel technologies eliminate the need for coatings, ongoing maintenance and frequent replacement.
- AOC has the optimum cost-effective resin to protect against attack from process chemicals, waste storage, aerobic and anaerobic microorganisms and hydrolysis. Time-proven chemistries for municipal and industry wastewater include isophthalic polyester, bisphenol-A polyester, bisphenol vinyl ester, epoxy novolac vinyl ester and, where required, fire and smoke ratings as high as Class 1 (ASTM E84).
- Composites made with Vipel resins are design-engineered to exacting specifications for cost effectiveness and performance. The primary reasons for using AOC resin technologies in composites for wastewater treatment are chemical and corrosion resistance, long-term durability, minimal maintenance, high strength-to-weight ratio and dimensional and thermal stability.
- Other composite benefits that can be achieved from wastewater applications that incorporate AOC resin are dynamic loadbearing properties, freedom of design, unitized construction, electrical and thermal insulating properties, integral color, surface finish options and lower system and life cycle costs.



- Domes, enclosures, hoods and covers fabricated with Vipel resins contain odors and fluids, maintain treatment conditions and resist attack from moist, corrosive environments. A high strength-to-weight ratio results in large composite structures that are easier to ship and install than heavier

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alternatives. Design freedom allows for large curved expanses stiffened with integral ribbing and shaped to be nested during shipping.

- AOC resin technology provides inherent corrosion resistance for composite grating, handrails, stairtreads, platforms, ladders and protective cages. Rust-free qualities eliminate the need for protective coatings and ongoing maintenance. Painting is eliminated because color is integrally imparted during the fabrication process. Foot traffic applications are manufactured with slip and skid resistant features, and the high dielectrics of composites provide added protection when working near power sources.
- Vipel resins for cured-in-place pipe rehabilitation allows municipalities and industrial companies to repair aging underground sewers and piping systems without the cost and disruption of digging. A new piper line, often with higher flow capacity, is fabricated inside the existing pipe structure.

- Other composite wastewater applications that benefit from AOC resins include:

- Storage tanks
- Process Vessels
- Trickling Filters
- Slide Gates
- Baffles
- Weirs
- Piping and Fittings
- Drains
- Aeration Equipment
- Coatings & Liners
- Pumps
- Fans & Blowers
- Enclosures
- Troughs
- Flumes & ducts

- AOC combines its superior resin chemistry with the chemistry of people dedicated to providing material solutions for wastewater treatment. At the vanguard of our corrosion strategy are regional Corrosion Specialists who assist in the specification, fabrication and installation of corrosion resistant equipment made with AOC resins. Contact the Corrosion Specialists in your region to put the chemistry of Vipel technology – and the chemistry of the AOC Corrosion Team – to work for you.

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**AOC**<sup>®</sup>  
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